and their purpose may not be obvious to casual users; and, discrepancies to private aids are often detected, reported, and corrected less promptly than discrepancies to Coast Guard aids to navigation.

[CGD 86–031, 52 FR 42640, Nov. 6, 1987, as amended by CGD 88–018, 54 FR 48608, Nov. 24, 1989; CGD 97–018, 63 FR 33573, June 19, 1998; USCG–2001–9286, 66 FR 33640, June 25, 2001]

### § 62.23 Beacons and buoys.

(a) Aids to navigation are placed on shore or on marine sites to assist a navigator to determine his position or safe course. They may mark limits of navigable channels, or warn of dangers or obstructions to navigation. The primary components of the U.S. Aids to Navigation System are beacons and buoys.

(b) Beacons are aids to navigation structures which are permanently fixed to the earth's surface. They range from large lighthouses to small, single-pile structures and may be located on land or in the water. Lighted beacons are called lights; unlighted beacons are called daybeacons.

(1) Beacons exhibit a daymark. For small structures these are colored geometric shapes which make an aid to navigation readily visible and easily identifiable against background conditions. Generally, the daymark conveys to the mariner, during daylight hours, the same significance as does the aid's light or reflector at night. The daymark of large lighthouses and towers, however, consists of the structure itself. As a result, these daymarks do not infer lateral significance.

(2) Vessels should not pass beacons close aboard due to the danger of collision with rip-rap or structure foundations, or the obstruction or danger that the aid marks.

(c) Buoys are floating aids to navigation used extensively throughout U.S. waters. They are moored to the seabed by sinkers with chain or other moorings of various lengths.

(1) The daymark of a buoy is the color and shape of the buoy and, if so equipped, of the topmark.

(i) Can buoys have a cylindrical shape.

(ii) Nun buoys have a tapered, conical shape.

(iii) Pillar buoys have a wide cylindrical base supporting a narrower superstructure. They may be surmounted by colored shapes called topmarks.

(iv) Spherical buoys have a round shape.

(2) Mariners attempting to pass a buoy close aboard risk collision with a yawing buoy, the buoy's mooring, or with the obstruction which the buoy marks.

(3) Mariners should not rely on buoys alone for determining their positions due to factors limiting their reliability. Prudent mariners will use bearings or angles from beacons or other landmarks, soundings, and various methods of electronic navigation. Buoys vary in reliability because:

(i) Buoy positions represented on nautical charts are approximate positions only, due to practical limitations in positioning and maintaining buoys and their sinkers in precise geographical locations.

(ii) Buoy moorings vary in length. The mooring lengths define a ''watch circle'', and buoys can be expected to move within this circle. Actual watch circles do not coincide with the dots or circles representing them on charts.

(iii) Buoy positions are normally verified during periodic maintenance visits. Between visits, environmental conditions, including atmospheric and sea conditions, and seabed slope and composition, may shift buoys off their charted positions. Also buoys may be dragged off station, sunk, or capsized by a collision with a vessel.

[CGD 86–031, 52 FR 42640, Nov. 6, 1987; CGD 86–031, 52 FR 46351, Dec. 5, 1987]

### § 62.25 Lateral marks.

(a) Lateral marks define the port and starboard sides of a route to be followed. They may be either beacons or buoys.

(b) Sidemarks are lateral marks which advise the mariner to stay to one side of the mark. Their most frequent use is to mark the sides of channels; however, they may be used individually to mark obstructions outside of clearly defined channels. Sidemarks are not always placed directly on a channel edge and may be positioned outside the channel as indicated on charts and nautical publications.

(1) Port hand marks indicate the left side of channels when proceeding in the Conventional Direction of Buoyage. Beacons have green square daymarks, while buoys are green can or pillar buoys.

(2) Starboard hand marks indicate the right side of channels when proceeding in the Conventional Direction of Buoyage. Beacons have red triangular daymarks, while buoys are red nun or pillar buoys.

(c) Preferred channel marks indicate channel junctions or bifurcations and may also mark wrecks or obstructions which the mariner, after consulting a chart to ascertain the location of the obstruction relative to the aid, may pass on either side. Preferred channel marks have red and green horizontal bands with the color of the topmost band indicating the preferred channel. If the topmost band is green, the mark serves as a port hand mark for vessels following the preferred channel proceeding in the Conventional Direction of Buoyage, and as a starboard hand mark for the other channel. Beacons would have square daymarks, while buoys would be can or pillar buoys. If the topmost band is red, the mark serves as a starboard hand mark for vessels following the preferred channel proceeding in the Conventional Direction of Buoyage, and a port hand mark for the other channel. Beacons would have triangular daymarks, while buoys would be nun or pillar buoys.

(d) The above color schemes apply to IALA Region B. Marks located in the IALA Region A exhibit reversed color significance: port hand marks will be red when following the Conventional Direction of Buoyage, and starboard hand marks will be green. The meaning of daymark and buoy shapes is identical in both regions.

(e) Certain marks on the Intracoastal Waterway may exhibit reversed lateral significance. See § 62.49.

[CGD 86–031, 52 FR 42640, Nov. 6, 1987, as amended by CGD 88–018, 54 FR 48608, Nov. 24, 1989]

### § 62.27 Safe water marks.

Safe water marks indicate that there is navigable water all around the mark. They are often used to indicate fairways or midchannels, or the seaward end of channels. Safe water marks are colored with red and white vertical stripes. Beacons have an octagonal daymark; red and white buoys are spherical or display a red spherical topmark.

[CGD 86–031, 52 FR 42640, Nov. 6, 1987, as amended by CGD 88–018, 54 FR 48608, Nov. 24, 1989]

### § 62.29 Isolated danger marks.

Isolated danger marks indicate an isolated danger which may be passed on all sides. As these marks are erected or moored on or near dangers, they should not be approached closely without special caution. These marks are colored black with one or more broad horizontal red bands and are equipped with a topmark of two black spheres, one above the other.

[CGD 86–031, 52 FR 42640, Nov. 6, 1987, as amended by CGD 88–018, 54 FR 48608, Nov. 24, 1989]

### § 62.31 Special marks.

Special marks are not primarily intended to assist safe navigation, but to indicate special areas or features referred to in charts or other nautical publications. They may be used, for example, to mark anchorages, cable or pipeline areas, traffic separation schemes, military exercise zones, ocean data acquisition systems, etc. Special marks are colored solid yellow.

### § 62.32 Inland waters obstruction mark.

(a) On inland waters designated by the Commandant as State waters in accordance with § 66.05–5 of this chapter and on non-navigable internal waters of a State which have no defined head of navigation, a buoy showing alternate vertical black and white stripes may be used to indicate to a vessel operator that an obstruction to navigation extends from the nearest shore to the buoy.

(b) The black and white buoy's meaning is ''do not pass between the buoy and the shore''. The number of white and black stripes is discretionary, provided that the white stripes are twice the width of the black stripes. Prior to December 31, 2003, this aid shall not be used on a waterway which has a red and white striped obstruction marker